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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PHILLIPS, HASSAN A

ART UNIT

PAPER NUMBER

2151

DATE MAILED: 05/19/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary

Application No.

09/715,045

Applicant(s)

MACHIRAJU ET AL.

Examiner

Hassan Phillips

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-16 and 18-34 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3-7,9-16 and 18-34 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 05 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendments filed on April 5, 2004.

Drawings

1. The amendments to the drawings have been received and considered by the examiner. After consideration of the amendments, the examiner has withdrawn the objection to the drawings.

Specification

1. The amendments to the specification have been received and considered by the examiner. After consideration of the amendments, the examiner has withdrawn the objection to the specification and abstract.

Claim Rejections - 35 USC § 112

1. The amendment to claim 1 has been received and considered by the examiner. After consideration of the amendment, the examiner has withdrawn the rejection under 35 USC § 112, to claim 1.

Response to Arguments

1. Applicant's arguments, see page 21, paragraph 3, and page 23, paragraph 2, filed April 5, 2004, with respect to the rejection(s) of claim(s) 2 and 14, under 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Titmuss et al. (hereinafter Titmuss), U.S. patent publication 2002/0025798.

2. Applicant's arguments, see page 22, paragraph 2, filed April 5, 2004, with respect to the rejection(s) of claim(s) 9 under 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Masuoka et al. (hereinafter Masuoka), U.S. patent 6,081,826.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 14, 16, 18, 20, are rejected under 35 U.S.C. 102(e) as being anticipated by Titmuss.

3. In considering claim 14, Titmuss teaches a network resource sharing protocol including:

- a) a discovery phase, (page 7, paragraph 171);
- b) a negotiation phase including an agreement of a cost for the use of shareable resources of a first network element by a second network element, (page 7, paragraph 172);
- c) a fulfillment phase, (page 7, paragraph 173).

4. In considering claim 16, Titmuss discloses the negotiation phase including a second network element for requesting at least some shareable resources of a first network element. See page 7, paragraph 172.

5. In considering claim 18, Titmuss discloses the fulfillment phase including a cooperative execution of a task by first and second network elements. See page 7, paragraph 173.

6. In considering claim 20, Titmuss further discloses the fulfillment phase including termination of the communication between first and second network elements. See pages 8-9, paragraphs 206-211.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 21-24, are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawley et al., (hereinafter Crawley), U.S. Patent 5,995,503 in view of Titmuss.

3. In considering claims 1, 21-24, Crawley discloses a method of sharing resources in a connectionless network comprising:

- a) a network including at least two network elements (col. 3, lines 57-65);
- b) broadcasting data over the network by a first network element, indicating the resources of the first network element available for sharing, within the data (col. 4, lines 64-67, col. 5, lines 1-11);
- c) requesting the use of at least part of the available resources of a first network element by a second network element (col. 5, lines 27-30);
- d) executing a task by co-operation of first and second network elements (col. 5, lines 32-36);
- e) broadcasting resource reservation advertisements over the network (col. 5, lines 14-26).

It is inherent that resources of a first network element are released by a second network element upon completion of a task since resource reservation advertisements are broadcasted over the network. If resources were to never be released upon completion of a task, there would be no need for the broadcasting of resource reservations.

Although the disclosed method of Crawley shows substantial features of the claimed invention, it fails to explicitly disclose:

- a) first and second network elements negotiating a cost for the resources.

Nevertheless, in a similar field of endeavor, Titmuss discloses a telecommunications method comprising:

- a) network elements negotiating a cost for a resource (page 7, paragraph 172).

It is well known in the art that there can be a cost associated with utilizing particular resources. Given the teachings of Titmuss, it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Crawley with Titmuss, in order to negotiate a cost for the resources providing a QoS. The motivation for doing so would have been to provide an efficient means for setting up routes, and increasing the size of a network without generating an enormous amount of traffic across the network, Titmuss, page 1, paragraphs 11-13.

4. Claims 3-7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawley, in view of Titmuss, and further in view of Morris et al. (hereinafter Morris), U.S. patent publication 2003/0149794.

5. Regarding claims 3 and 6, although the disclosed method of Crawley in view of Titmuss, shows substantial features of the claimed inventions, it fails to explicitly disclose:

- a) providing the network in the form of a piconet, or wide band short-range wireless network.

Nevertheless, in a similar field of endeavor, Morris discloses a method for management of an extended network comprising:

- a) providing the network in the form of a piconet (pg. 2, paragraph 15).

It is well known in the art that wireless networks are taking the place of many non-wireless networks. Given the teachings of Morris, it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Crawley and Titmuss, with Morris, in order to have network elements in a wide band, short range wireless network, or piconet. The motivation for doing so would have been to utilize up-to-date mobile devices such as laptops, pda's etc. as the network elements in the method disclosed by Crawley.

6. Regarding claim 4, although the disclosed method of Crawley in view of Titmuss shows substantial features of the claimed invention, it fails to explicitly disclose:

- a) providing at least one of the network elements in the form of a mobile device.

Nevertheless, Morris discloses a method for management of an extended network comprising:

- a) providing the network elements in the form of a mobile device (pg. 2, paragraph 16).

It is well known in the art that mobile devices are very convenient, and would have been present in most networks at the time of the invention. Given the teachings of Morris, it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Crawley and Titmuss, with Morris, in order to have mobile devices as the hosts in the network disclosed by Crawley. The motivation for doing so would have been to provide convenient up-to-date wireless devices such as laptops, pda's etc. as the hosts in the method disclosed by Crawley.

7. Regarding claim 5, although the disclosed method of Crawley and Titmuss, shows substantial features of the claimed invention, it fails to explicitly disclose:

- a) providing geographically distributed wireless base stations.

Nevertheless, Morris discloses a method for management of an extended network comprising:

- a) providing a geographically distributed wireless base station (pg. 1, paragraph 3).

It is well known in the art that mobile nodes can communicate with each other by means of a base station. Given the teachings of Morris, it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Crawley and Titmuss, with Morris, in order to have a wireless network comprising geographically distributed wireless base stations. The motivation for doing so would have been to provide a communication means between the mobile devices, incase they were out of range of each other.

8. Regarding claim 7, the disclosed method of Crawley, shows network connections, and memory as resources to be shared. See col. 4, lines 64-67, col. 5, lines 1-11.

9. Claims 9, 12, 13, 25, 30-34, are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawley, in view of Masuoka.

10. In considering claims 9, 25, 31, 32, 33, and 34, Crawley et al. discloses a method of sharing resources in a connectionless network comprising:

- a) a network including at least two network elements (col. 3, lines 57-65);
- b) broadcasting data over the network by a first network element, indicating the resources of the first network element available for sharing, within the data (col. 4, lines 64-67, col. 5, lines 1-11).

- c) requesting the use of at least part of the available resources of a first network element by a second network element (col. 5, lines 27-30);
- d) executing a task by co-operation of first and second network elements (col. 5, lines 32-36).

Although the disclosed method of Crawley shows substantial features of the claimed invention, it fails to expressly disclose:

- a) completing a task at a first network element by using resources at a second network element.

Nevertheless, completing tasks at a first network element by using resources at a second network element was well known in the art at the time of the present invention. This is exemplified in a similar field of endeavor where Masuoka discloses a method for sharing resources over a network comprising:

- a) completing a task at a first network element, by using resources at a second network element, (col. 22, lines 49-52).

Given the teachings of Masuoka, it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Crawley to show completing a task at a first network element by using resources at a second network element. This would have shown a well-known means for effectively utilizing remote resources, Masuoka, col. 2, lines 63-67, col. 3, lines 1-9.

11. In considering claim 12, the network elements in the network taught by Crawley comprises routers. See col. 4, lines 40-44.

12. Regarding claim 13, the disclosed method of Crawley, shows network connections, and memory as resources to be shared. See col. 4, lines 64-67, col. 5, lines 1-11.

13. Regarding claim 30, the disclosed method of Crawley, shows network connections, and memory as resources to be shared. See col. 4, lines 64-67, col. 5, lines 1-11.

14. Claims 10, 11, 26-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawley, in view of Masuoka, and further in view of Morris.

15. Regarding claims 10, 11, 26, and 29, although the disclosed method of Crawley in view of Masuoka, shows substantial features of the claimed inventions, it fails to explicitly disclose:

- a) providing the network in the form of a wireless network.

Nevertheless, in a similar field of endeavor, Morris discloses a method for management of an extended network comprising:

- a) providing the network in the form of a wide bandwidth short-range wireless network, or a piconet (pg. 2, paragraph 15).

It is well known in the art that wireless networks are taking the place of many non-wireless networks. Given the teachings of Morris, it would have been obvious to a

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person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Crawley and Masuoka, with Morris, in order to have network elements in a wide band short-range wireless network, or piconet. The motivation for doing so would have been to utilize up-to-date mobile devices such as laptops, pda's etc. as the network elements in the method disclosed by Crawley.

16. Regarding claim 27, although the disclosed method of Crawley in view of Masuoka shows substantial features of the claimed invention, it fails to explicitly disclose:

- a) providing at least one of the network elements in the form of a mobile device.

Nevertheless, Morris discloses a method for management of an extended network comprising:

- a) providing the network elements in the form of a mobile device (pg. 2, paragraph 16).

It is well known in the art that mobile devices are very convenient, and would have been present in most networks at the time of the invention. Given the teachings of Morris, it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Crawley and Masuoka, with Morris, in order to have mobile devices as the hosts in the network disclosed by Crawley. The motivation for doing so would have been to provide convenient up-to-date wireless devices such as laptops, pda's etc. as the hosts in the method disclosed by Crawley.

17. Regarding claim 28, although the disclosed method of Crawley and Masuoka, shows substantial features of the claimed invention, it fails to explicitly disclose:

- a) providing geographically distributed wireless base stations.

Nevertheless, Morris discloses a method for management of an extended network comprising:

- a) providing a geographically distributed wireless base station (pg. 1, paragraph 3).

It is well known in the art that mobile nodes can communicate with each other by means of a base station. Given the teachings of Morris, it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Crawley and Masuoka, with Morris, in order to have a wireless network comprising geographically distributed wireless base stations. The motivation for doing so would have been to provide a communication means between the mobile devices, incase they were out of range of each other.

18. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Titmuss in view of Crawley.

19. In considering claim 15, although the resource sharing protocol disclosed by Titmuss shows substantial features of the claimed invention, it fails to disclose:

- a) broadcasting a notification of shareable resources.

Nevertheless, Crawley discloses:

- a) broadcasting data over the network by a first network element, indicating the resources of the first network element available for sharing, within the data (col. 4, lines 64-67, col. 5, lines 1-11).

Given the teachings of Crawley, it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Titmuss to have the first network element broadcast a notification of its shareable resources in the discovery phase. This would allow the mobile party (or second network element) to know the available network resources before transmission, and would therefore alleviate the need for the second network element to broadcast an indication of the format in which it will transmit, Titmuss, page 7, paragraph 170.

20. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Titmuss, in view of Masuoka.

21. In considering claim 19, although the disclosed method of Titmuss shows substantial features of the claimed invention, it fails to expressly disclose:

- a) execution of a task and passing the result to a second network element.

Nevertheless, completing tasks at a first network element by using resources at a second network element was well known in the art at the time of the present invention. This is exemplified in a similar field of endeavor where Masuoka discloses a method for sharing resources over a network comprising:

- a) executing a task by a first network element, and passing a result of the task to a second network element, (col. 3, lines 7-9).

Given the teachings of Masuoka, it would have been obvious to a person of ordinary skill in the art, at the time of the present invention, to modify the teachings of Titmuss to show the fulfillment phase including the execution of a task by a first network element and the passing of a result of the task to a second network element. This would have shown a well-known means for effectively utilizing remote resources, Masuoka, col. 2, lines 63-67, col. 3, lines 1-9.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Crawley et al., U.S. Patent 5,995,503 discloses a method for sharing resources in a connectionless network.

Morris et al., U.S. Patent Pub. No. 2003/0149794 discloses a method for management of an extended network containing short-range wireless links.

Titmuss et al., U.S. Patent Pub. No. 2002/0025798 discloses negotiating a cost for a resource.

Masuoka et al., U.S. Patent 6,081,826 discloses a cooperative processing over a network among shared resources.

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2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (703) 305-8760. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



FRANTZ B. JEAN
PRIMARY EXAMINER

HP/
5/12/04